



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

AK

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,953	01/17/2002	Darren D. Cofer	1100.1144101 (H0002091)	3315
128	7590	11/12/2003	EXAMINER	
HONEYWELL INTERNATIONAL INC. 101 COLUMBIA ROAD P O BOX 2245 MORRISTOWN, NJ 07962-2245			GONZALEZ, MADELINE	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 11/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,953

Applicant(s)

COFER ET AL.

Examiner

Madeline Gonzalez

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-21, 23 and 24 is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

In response to applicant's amendment dated September 8, 2003

Claim Objections

1. Claim 22 is objected to because of the following informalities:
 - a) Claim 22: The claim recites the limitation "the method for comparing the interference bands" in lines 9-10. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 and 6-10 are finally rejected under 35 U.S.C. 102(b) as being anticipated by Heifler (U.S. 5,980,123).

Heifler discloses a system and method for detecting an object entering a monitored area, as shown in Fig. 1, the method including the steps of:

- illuminating the monitored area with a spotlight 14, said light from the spotlight 14 is considered a pattern;
- capturing a live image of the monitored area, including the pattern, using a camera 16;
- detecting an object entering the monitored area when a change is detected in the pattern in the live image;
- wherein the detecting step detects an object entering the monitored area when the change in the pattern exceeds a predetermined threshold, i.e., when the object enters a first field of view of an infrared sensor;
- capturing a reference image of the monitored area, including the pattern;
- comparing the reference image and the live image to detect a change in the pattern in the live image;
- wherein the reference image and the live image each inherently have a number of mask windows, and wherein the comparing step compares selected mask windows of the reference image to selected mask windows of the live image;
- wherein the comparing step compares the selected mask windows of the reference image and the live image inherently using one or more comparing algorithms; and
- performing a predefined action if the detecting step detects an object entering on of the selected mask windows.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 4 and 5 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Heifler (U.S. 5,980,123).

Heifler discloses all the subject matter claimed above in paragraph 3 with the exception of the specific pattern.

With respect to the specific pattern: Heifler discloses a method for detecting an object entering a monitored area including the step of illuminating the monitored area with a spotlight

Art Unit: 2859

14, said light from the spotlight 14 is considered a pattern. The specific pattern claimed by applicant, i.e., static or dynamic patterns, absent any criticality, is considered to be nothing more than a choice of engineering skill, choice or design because the pattern claimed by Applicant and the pattern used by Heifler are well known alternate types of patterns which will perform the same function, if one is replaced with the other, of illuminating an area. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the system disclosed by Heifler with a static or dynamic pattern as an alternate manner of illuminating an area.

Allowable Subject Matter

7. Claims 11-21, 23 and 24 are allowed.
8. Claim 22 would be allowable if rewritten or amended to overcome the objection(s) set forth in this Office action.
9. The following is a statement of reasons for the indication of allowable subject matter:

Claim 11 is allowed because the prior art of record does not show or suggest a method for detecting an object entering a monitored area, the method including the steps of illuminating the monitored area with a first pattern, and creating moiré interference bands by imposing a second

Art Unit: 2859

pattern shifted relative to the first pattern, in combination with the remaining limitations in the claim.

Claims 12-21 are allowed due to their dependency on claim 11.

Claim 23 is allowed because the prior art of record does not show or suggest a method for detecting an object entering a monitored area, the method including the steps of calculating a difference between brightness levels corresponding to light areas in a reference mask window and the brightness levels corresponding to dark areas in the reference mask window, and calculating a difference between brightness levels corresponding to light areas in a live mask window and the brightness levels corresponding to dark areas in the live mask window, in combination with the remaining limitations in the claim.

Claim 24 is allowed due to its dependency on claim 23.

Response to Arguments

10. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kuwano et al. ('320) and Tapp disclose monitoring systems. Hull-Allen discloses a system using moiré interferometry. Schuette discloses a system using a moiré-like pattern.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2859

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeline Gonzalez whose telephone number is (703) 308-7004.

The examiner can normally be reached on Monday-Friday (8:00-5:30), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (703) 308-3875. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

MG
November 5, 2003



Diego F.F. Gutierrez
Supervisory Patent Examiner
Technology Center 2800